CLAIMS

1. A method comprising:

identifying a set of commands to be submitted to a processing unit;

selecting a subset of the set of commands;

submitting the subset of the set of commands to the processing unit for processing; and

analyzing processing performed by the processing unit in response to the subset of the set of commands.

2. A method as recited in claim 1, wherein the analyzing comprises measuring an amount of time taken for the subset of the set of commands to be processed.

3. A method as recited in claim 1, wherein the analyzing comprises showing how a scene would be drawn using only the subset of the set of commands.

4. A method as recited in claim 1, wherein the processing unit comprises a graphics processing unit, and wherein the set of commands comprises commands to be submitted to the graphics processing unit to have a frame drawn.

5. A method as recited in claim 1, wherein the set of commands were captured as they were previously submitted to the processing unit.

6. A method as recited in claim 5, further comprising:

setting the processing unit, prior to submitting the subset of the set of commands to the processing unit, to a particular state, wherein the particular state is a same state as the processing unit was in at the time capture of the set of commands began.

7. A method as recited in claim 1, further comprising modifying one or more of the subset of the set of commands prior to submitting the subset of the set of commands to the processing unit.

8. A method as recited in claim 1, wherein the processing unit comprises a graphics processing unit, the method further comprising:

analyzing the set of commands;

determining, based on the analysis of the set of commands, whether one or more recommendations for using the graphics processing unit are violated by the set of commands;

if one or more recommendations are violated by the set of commands, then:

selecting one of the violated recommendations;

determining how much faster the frame could have been drawn if the selected recommendation had not been violated; and

issuing a warning identifying both the selected recommendation that has been violated and how much faster the frame could have been drawn if the selected recommendation had not been violated.

9. One or more computer readable media having one or more instructions that, when executed by one or more processors, causes the one or more processors to:

identify a stream of commands previously submitted to a processing unit;

modify the stream of commands;

submit the modified stream of commands to the processing unit; and

determine a difference between a first amount of time required by the processing unit to process the stream of commands and a second amount of time required by the processing unit to process the modified stream of commands.

10. One or more computer readable media as recited in claim 9, wherein the processing unit comprises a graphics processing unit, wherein the stream of commands comprises commands previously submitted to the graphics processing unit to have a frame of video drawn, wherein the first amount of time required by the processing unit to process the stream of commands comprises the amount of time required by the graphics processing unit to draw the frame using the stream of commands, and wherein the second amount of time required by the processing unit to process the modified stream of commands comprises the amount of time required by the graphics processing unit to draw the frame using the modified stream of commands.

11. One or more computer readable media as recited in claim 9, wherein to modify the stream of commands is to remove one or more redundant commands.

12. One or more computer readable media as recited in claim 9, wherein to modify the stream of commands is to change one or more instructions of an internal program of the processor to reveal a value of an internal variable of the internal program.

13. One or more computer readable media as recited in claim 9, wherein the stream of commands were captured as they were previously submitted to the processing unit, and wherein the instructions further cause the one or more processors to set the processing unit, prior to submission of the modified stream of commands to the processing unit, to a particular state, wherein the particular state is a same state as the processing unit was in at the time capture of the stream of commands began.

14. One or more computer readable media as recited in claim 9, wherein the instructions further cause the one or more processors to:

analyze the stream of commands;

determine, based on the analysis, whether one or more recommendations for using the processing unit are violated by the stream of commands;

if one or more recommendations are violated by the stream of commands, then:

use, as the modified stream of commands, the stream of commands as modified to no longer violate a selected one of the one or more recommendations;

issue a warning identifying both the selected recommendation that had been violated and an indication of the difference.

15. One or more computer readable media having one or more instructions that, when executed by one or more processors, causes the one or more processors to:

capture a state of a graphics processing unit;

capture a plurality of commands submitted to the graphics processing unit in order to draw a frame of video; and

save both the captured state and the captured plurality of commands.

16. One or more computer readable media as recited in claim 15, wherein the one or more instructions further cause the one or more processors to perform the captures and save in response to a request to capture the frame, wherein the request is received from a remote computing device.

17. One or more computer readable media as recited in claim 15, wherein to capture the state of the graphics processing unit is to obtain the settings of all registers of the graphics processing unit.

18. One or more computer readable media as recited in claim 15, wherein the one or more instructions further cause the one or more processors to capture timing data regarding how fast portions of the frame of video are drawn.

19. One or more computer readable media as recited in claim 15, wherein to capture the plurality of commands is to:

identify a memory location referenced by one of the plurality of commands; and

capture the contents of the memory location.

20. One or more computer readable media as recited in claim 19, wherein to capture the plurality of commands is further to:

determine whether the memory location was referenced by a previous one of the plurality of commands;

if the memory location was not referenced by a previous one of the plurality of commands, then capture the contents of the memory location; and

if the memory location was referenced by a previous one of the plurality of commands, then check whether the contents of the memory location are the same as the contents of the memory location when the memory location was referenced by the previous command, and capture the contents of the memory location only if the contents of the memory location are not the same as the contents of the memory location when the memory location was referenced by the previous command.